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Docket No.: NY-THEOR 203-US1
(PATENT)

THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
William W. Lee et al.

Application No.: 09/975,690	Confirmation No.: 2373
Filed: October 11, 2001	Art Unit: 2145
For: SMART GENERATOR	Examiner: A. Q. Choudhury

RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF
(37 C.F.R. § 41.37)

MS Appeal Brief - Patents
Commissioner for Patents
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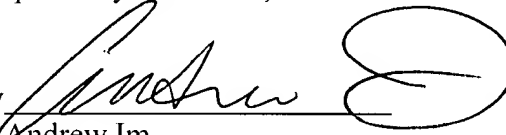Alexandria, VA 22313-1450

Dear Sir:

In response to the Notification of Non-Complaint Appeal Brief mailed April 18, 2007, applicants are submitting a revised Appeal Brief wherein each of the items are on a new page and a Table of Contents is included.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-0624, under Order No. NY-THEOR 203-US1 (10107432) from which the undersigned is authorized to draw.

Dated: May 16, 2007

Respectfully submitted,

By _____
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Application (if known): 09/975,690   Attorney Docket No.: NY-THEOR 203-US1

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Response to Notice of Non-Compliance
Copy of Notice of Non-Compliance mailed 4/18/07
Appeal Brief

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In re Applicant	:	William LEE et al.
Serial No.	:	09/975,690
Filed	:	October 11, 2001
For	:	SMART GENERATOR
Art Unit	:	2145
Examiner	:	Azizul Q. CHOUDHURY

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL
(37 CFR §41.37)

Pursuant to 37 C.F.R. § 41.31, et seq. appellants hereby appeal from the final rejection of the above identified application.

The final rejection is dated February 27, 2006. Appeal was noted, on May 30, 3006.

Pursuant to 37 C.F.R. § 41.20(b)(2), the fee for filing this Brief was previously submitted. The Commissioner is hereby authorized to deduct any additional fees or credit any overpayment to Deposit Account No. 500624.

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This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1206:

I   **REAL PARTY IN INTEREST**

The real party interest is the assignee, BEA Systems, Inc.

II   <u>RELATED APPEALS AND INTERFERENCES</u>

To the best knowledge of appellants, assignee, and the undersigned, there are no other prior or pending appeals, interferences, or judicial proceedings which may be related to, directly affect, or have a bearing on the Board's decision in this appeal.

III   STATUS OF CLAIMS

Claims 1-18 were filed with the original application.   Original claims 1 and 4 were amended by way of amendment.

Claims 19 and 20 were added by way of amendment.

Claims 1-20 are pending, all have been finally rejected, and all are appealed from.

IV   STATUS OF AMENDMENTS

No amendments have been offered after the final rejection of December 1, 2004.

V   SUMMARY OF CLAIMED SUBJECT MATTER

The claimed subject matter as recited in sole independent claim 1 relates to a method of generating code for Enterprise JavaBean (EJB) components from a business process. The present method as recited in claim 1 generates all the source code, object definitions, object relationships, and EJB-required files from a UML diagram or representation. The present invention as recited in claim 1 graphically models the business process using a UML drawing tool to provide an UML model having a plurality of EJB classes. *See e.g.,* Figs. 1 and 7; page 4, lines 6-9; page 5, lines 22-31; page 7, line 16 to page 8, line 6; page 19, lines 19-23 of the specification. Additionally, the present invention as recited in claim 1 defines the relationships between the plurality of EJB classes. *See e.g.,* Figs. 1, 7, 10 and 15; page 4, lines 9-12; page 5, lines 25-31; page 20, line 26 to page 21, line 14; page 28, line 1 to page 29, line 19; page 34, lines 16-25 of the specification. Further, the present invention as recited in claim 1 stereotypes each of the plurality of EJB classes into one or more EJB components. *See e.g.,* Figs. 8 and 16; page 4, lines 9-12; page 15, lines 7-10; page 19, line 25 to page 35, line 12 of the specification. Furthermore, the present invention as recited in claim 1 transforms each of the EJB components into EJB source code. *See e.g.,* Figs. 1, 13, 15 and 17; page 4, lines 9-12; page 5, lines 22-31; page 11, lines 4-6; page 21, lines 16-20; page 31, line 30 to page 35, line 30 of the specification. Also, the present invention permits developers seamlessly update the generated EJB source by embedding code markers in the EJB source code. *See e.g.,* Figs. 1 and 7, page 8, line 9 to page 13, line 3 of the specification.

The claimed subject matter as aforesaid further comprises the steps of adding business logic code between said code markers as required by claim 19 and synchronizing the UML model with the business logic code, thereby providing round trip engineering support, as required by claim 20. *See e.g.,* page 4, lines 4-5; page 7, lines 1-3; page 8, line 20 to page 9, line 27; page 11, line 14 to page 13, line 5 of the specification.

VI   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

All claims have been rejected under 35 U.S.C. § 103 over Iyengar (U.S. Patent No. 6,018,627 to Iyengar et al.) in view Thomas ("Container-Managed Persistence," Patricia Seybold Group, December 1998). This may be seen at pages 2-20 of the final Office Action.

This rejection is presented for review.

VII ARGUMENT

Claims 1-20 have been rejected under 35 U.S.C. §103 over Iyengar and Thomas. To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP 2143.

Appellants respectfully submit that these same claims 1-20 were also finally rejected under 35 U.S.C. §103 over Thomas and Underwood (U.S. Patent No. 6,601,233) on December 1, 2004. Appellant filed its Appeal Brief on May 2, 2005 in response to the Final Office Action of December 1, 2004. In response to Appellant's Appeal Brief, the Examiner essentially withdrew the final rejection and issued a non-final rejection of September 9, 2005 based on Iyengar and Thomas. Appellants' arguments are essentially same as its Appeal Brief of May 2, 2005 because the combination of Iyengar and Thomas is no better than the combination of Thomas and Underwood in teaching or suggesting all of the claim limitations of the present application.

A. Combined References Do Not Teach Or Suggest All The Claim Limitations

The Examiner has failed to establish a *prima facie* case of obviousness because the combination of Iyengar and Thomas does not teach or suggest all the claim limitations of claim 1.

1. Thomas Does Not Teach Or Suggest Any of the Claimed Steps

As noted in Appellant's Appeal Brief of May 2, 2005, Examiner Kianers has essentially admitted that Thomas does not teach or suggest any of the claimed steps of claim 1 (*See* final Office Action of December 1, 2004, page 2; page 3, paragraph 1). Accordingly, it is unclear to Appellants why Thomas is relevant as a prior art reference and additionally why Examiner Choudhury continues to rely on Thomas in rejecting the claims of the present invention.

2. Iyengar Does Not Teach Or Suggest Embedding Code Markers

Appellants respectfully submit that only the present invention teaches or suggest "embedding code markers in said EJB source code to enable subsequent updates to said EJB source code," as required in claim 1.

Even assuming *arguendo* that Iyengar is somehow related to the present invention of generating EJB source code for EJB components from a business process as alleged by the Examiner, Iynegar does not teach or suggest "embedding code markers in said EJB source code to enable subsequent updates to said EJB source code," as required in claim 1 of the present invention. In fact, col. 9, lines 32-25 in Iyengar, cited by the Examiner for allegedly teaching the step of "embedding code markers," merely states that

> "The system allows developers to use the language of their choice in writing the method, including Java, C++, Visual Basic (which is a registered trademark of Microsoft Corporation), or COBOL."

Contrary to the Examiner's assertion, Iyengar merely describes enabling the programmer to use her preferred programming language to write the business logic. Iyengar does not teach or suggest modifying the EJB source code by "embedding code markers," as required by claims of the present application. The Examiner has fail to explain once again how enabling the programmers to write in various programming language is equivalent to "embedding code markers in said EJB source code to enable subsequent updates to said EJB source code." As previously noted, applicants are lost as to how enabling the programmers to write in various programming language is relevant at all to the present case – since such feature is not claimed in the present application.

"To imbue one of ordinary skill in the art with knowledge of the present invention, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim of the insidious effect of hindsight syndrome, wherein that which only the inventor taught is used against the teacher." W.L. Gore & Assoc. v. Garlock, Inc., 721 F.2d 1540, 1553 (Fed. Cir. 1983). In the present case, none of the references teach or suggest embedding the code markers in the EJB source code to enable subsequent updates to the EJB source code, as required in claim 1 of the present invention. Appellants respectfully submit that the Examiner has failed to establish the basic requirements of a *prima facie* case of obviousness for claims 1-20.

3. Iyengar Does Not Teach Or Suggest Adding Business Logic Code Between The Code Markers

The Examiner has failed to establish a *prima facie* case of obviousness because the combination of Iyengar et al. and Thomas does not teach or suggest all the claim limitations of claim 19 and 20.

The combination of Iyengar and Thomas does not teach or suggest "adding business logic code between said code markers" embedded in the EJB source code and "synchronizing said UML model with said business logic code, thereby providing round trip engineering support" (emphasis added), as required in claims 19 and 20, respectively. Moreover, Appellants respectfully submit that one of ordinary skill in the art would not find that editing the business logic for building components as described in Iyengar is equivalent to embedding the code markers in the EJB source code to enable subsequent updates to the EJB source code as required in claim 1 of the present invention. Appellants respectfully request that the Examiner provide a reference that one of ordinary skill in the art would find that editing the business logic used for building the components is equivalent to adding business logic code between the code markers embedded in the EJB source code to enable subsequent updates to the EJB source code.

Once again, the Examiner is impermissibly reconstructed Iyengar to render the claims unpatentable using hindsight gleaned from the present invention. "To imbue one of ordinary skill in the art with knowledge of the present invention, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim of the insidious effect of hindsight syndrome, wherein that which only the inventor taught is used against the teacher." W.L. Gore & Assoc. v. Garlock, Inc., 721 F.2d 1540, 1553 (Fed. Cir. 1983). In the present case, none of the references teach or suggest adding business logic code between said code markers embedded in the EJB source code and synchronizing the UML model with said business logic code, thereby providing round trip engineering support, as required in claims 19 and 20. Appellants respectfully submit that the Examiner has failed to establish the basic requirements of a *prima facie* case of obviousness for claims 19 and 20.

B. There Is No Motivation To Combine Prior Art

The Examiner has failed to establish a *prima facie* case of obviousness because there is no motivation in Thomas or in Iyengar that the teaching of these two references should be

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combined. Iyengar and Thomas fail to suggest the desirability of the claimed invention because it is undeniable that neither Iyengar nor Thomas is even remotely concern with the problem of providing provisions for subsequent updates by embedding code markers into the EJB source code, synchronizing the model and code, and round trip engineering support. "[T]he mere fact that the prior art can be modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." In re Laskowski, 871 F.2d 115, 117 (Fed. Cir. 1989) (quoting In re Gordon, 733 F.2d 900, 902 (Fed. Cir. 1984). Therefore, the Examiner has filed to establish a *prima facie* case of obviousness for claims 1-20.

Since applicant has recognized a problem not addressed by the cited prior art and solved that problem in a manner not suggested by either Iyengar or Thomas, the basis for patentability of the claims is established. See In re Wright, 6 U.S.P.Q. 2d, 1959, 1961-1962 (Fed. Cir. 1988). There, the CAFC relied upon previous decisions requiring a consideration of the problem facing the inventor in reversing the Examiner's rejection. "The problem solved by the invention is always relevant". Id. at 1962. See also, In re Rinehart, 189 U.S.P.Q. 143, 149 (CCPA 1967), which stated that the particular problem facing the inventor must be considered in determining obviousness.

Absent evidence that the specific problem of providing provisions for subsequent updates, synchronizing the model and code, and round trip engineering support was even recognized by the prior art, there can be no finding that the invention as a whole would have been obvious. As stated by the PTO Board of Appeals in Ex parte Breidt and Lefevre, 161 U.S.P.Q. 767, 768 (1968), "an inventive contribution can reside as well in the recognition of a problem as in a solution". It further appears that the conclusion reached by the Board of Appeals in Ex parte Minks, 169 U.S.P.Q. 120 (1969), is here in point. There, the Board concluded that "[a]ppellant having discovered the source of the problem and solved the same . . . he is . . . entitled to patent protection". Id. at 121.

Absent appellants' disclosure, there appears to be absolutely no reason to add Thomas to Iyengar so as to provide a method for generating code for EJB components from a business process and embedding code markers in the EJB source code to enable subsequent updates to the EJB, especially since these two references are concerned with completely different problems. In fact, the only reason one might turn to Thomas, if at all, is because of the hindsight gleaned from appellants' own disclosure. The Federal Circuit has been consistent in warning against hindsight

reconstruction of the prior art. As pointed out in Uniroyal v. Redkin-Wiley, 5 U.S.P.Q. 2d, 1434, 1438 (Fed. Cir. 1988):

> "When prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself. ...Something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination."

> * * *

> "...it is impermissible to use the claims as a frame and the prior art references as a mosaic to piece together a facsimile of the claimed invention."

In Uniroyal, the CAFC referred to Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Company, 221 U.S.P.Q. at 489, to conclude that "the mere fact that a device or process utilizes a known scientific principal does not alone make that device or process obvious." 5 U.S.P.Q. 2d at 1440.

In Orthopedic Equipment Company, Inc. v. United States, 217 U.S.P.Q. 193-199 (Fed. Cir. 1983), the Federal Circuit warned,

> "The difficulty which attaches to all honest attempts to answer this question [of obviousness based upon a combination of prior art] can be attributed to the strong temptation to rely on hindsight while undertaking this evaluation. It is wrong to use the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit. Monday morning quarterbacking is quite improper when resolving the question of nonobviousness in a court of law."

In reversing an Examiner's rejection based upon obviousness, wherein the Examiner concluded that a claimed apparatus is shown simply by turning a prior art reference "upside down," the CAFC ruled:

> "The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification."

In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984), and citations noted therein.

In view of the foregoing, it is respectfully submitted that one of ordinary skill in the art, after reading and understanding Iyengar, would not even turn to Thomas – and if she did, she would not understand how or why Iyengar's description of transforming the output data into a generalized format data should be combined with Thomas' description of the EJB persistence mechanisms.Claim Appendix
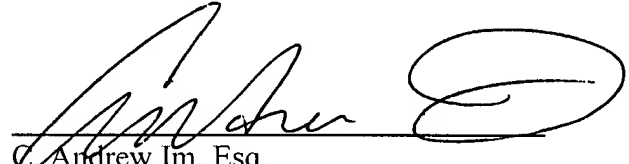
A clean copy of appealed claims 1-20 is appended herein.

VIII CONCLUSION

It is respectfully submitted, in light of above, all pending claims 1-20 are nonobvious under 35 U.S.C. §103 because the Examiner fail to establish a *prima facie* case of obviousness. Therefore, appellants request that the Board reverse the pending grounds for rejection.

Respectfully submitted,

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CLAIMS APPENDIX
(37 C.F.R. § 41.37(c)(viii)

LISTING OF CLAIMS ON APPEAL

1. A method of generating code for Enterprise JavaBean (EJB) components from a business process, comprising the steps of:

    graphically modeling said business process using a UML drawing tool to provide an UML model having a plurality of EJB Classes;

    defining relationships between said plurality of EJB classes;

    stereotyping each of said plurality of EJB classes into one or more EJB components;

    transforming each of said EJB components into EJB source code; and

    embedding code markers in said EJB source code to enable subsequent updates to said EJB source code.

2. The method of claim 1, further comprising the step of compiling said EJB source code to generate EJB application in accordance with deployment properties.

3. The method of claim 2, further comprising the step of deploying said EJB application to a server using one of the following: bean managed persistence or container managed persistence.

4. The method of claim 1, wherein the step of stereotyping stereotypes an EJB class into at least one of the following Smart EJB component: Belonging, Session, Entity, Configurable Entity, Business Policy and Workflow.

5. The method of claim 4, wherein an Entity EJB component comprises at least one interface and two EJB classes.

6. The method of claim 5, wherein said Entity EJB component being associated with a Primary Key class and a Value class.

7.   The method of claim 1, wherein each EJB component includes at least one of the following: name, stereotype, attribute and method.

8.   The method of claim 7, wherein each attribute includes a pair of accessor methods.

9.   The method of claim 1, wherein said relationships includes at least one of the following: inheritance and aggregation.

10.   The method of claim 9, wherein said aggregation includes multiplicity.

11.   The method of claim 10, further comprising the steps of:
        determining if said multiplicity relationship is one to many; and
        stereotyping said aggregation relationship into a collection type if it is determined that said multiplicity relationship is one to many.

12.   The method of claim 11, wherein said collection type includes one of the following: Set, Array, List or Map.

13.   The method of claim 1, wherein each EJB component is a Smart Component having at least one Smart Feature.

14.   The method of claim 13, wherein said Smart Feature includes one of the following: SmartKey, SmartHandle and SmartValue.

15.   The method of claim 1, wherein said Smart component is an eBusiness Smart Component.

16.   The method of claim 1, wherein the step of transforming includes the step generating said EJB codes according to a Code Template Dictionary.

17.   The method of claim 16, wherein said Code Template Dictionary includes key-value pair entries.

18.   The method of claim 17, wherein values of said Code Template Dictionary represent EJB code templates.

19.   The method of claim 1, wherein the step of embedding includes the step of adding business logic code between said code markers.

20.   The method of claim 19, further comprising the step of synchronizing said UML model with said business logic code, thereby providing round trip engineering support.

EVIDENCE APPENDIX
(37 C.F.R. § 41.37(c)(ix)

None.

RELATED PROCEEDINGS
APPENDIX
(37 C.F.R. § 41.37 (c)(x)

None.

UNITED STATES PATENT AND TRADEMARK OFFICE

MAY 16 2007

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,690	10/11/2001	William W. Lee	NY-THEOR 203.1-US	2373

24972   7590   04/18/2007

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EXAMINER

ART UNIT	PAPER NUMBER

DATE MAILED: 04/18/2007

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Notification of Non-Compliant Appeal Brief **(37 CFR 41.37)**	09/975,690	LEE ET AL.
	Examiner — Azizul Choudhury — MAY 1 6 2007	Art Unit — 2145
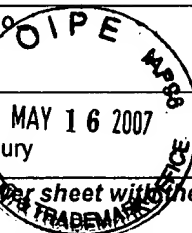
--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

The Appeal Brief filed on <u>01 December 2006</u> is defective for failure to comply with one or more provisions of 37 CFR 41.37.

To avoid dismissal of the appeal, applicant must file an amended brief or other appropriate correction (see MPEP 1205.03) within **ONE MONTH or THIRTY DAYS** from the mailing date of this Notification, whichever is longer. **EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136.**

1. ☐ The brief does not contain the items required under 37 CFR 41.37(c), or the items are not under the proper heading or in the proper order.

2. ☐ The brief does not contain a statement of the status of all claims, (e.g., rejected, allowed, withdrawn, objected to, canceled), or does not identify the appealed claims (37 CFR 41.37(c)(1)(iii)).

3. ☐ At least one amendment has been filed subsequent to the final rejection, and the brief does not contain a statement of the status of each such amendment (37 CFR 41.37(c)(1)(iv)).

4. ☐ (a) The brief does not contain a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number and to the drawings, if any, by reference characters; and/or (b) the brief fails to: (1) identify, for each independent claim involved in the appeal and for each dependent claim argued separately, every means plus function and step plus function under 35 U.S.C. 112, sixth paragraph, and/or (2) set forth the structure, material, or acts described in the specification as corresponding to each claimed function with reference to the specification by page and line number, and to the drawings, if any, by reference characters (37 CFR 41.37(c)(1)(v)).

5. ☐ The brief does not contain a concise statement of each ground of rejection presented for review (37 CFR 41.37(c)(1)(vi))

6. ☐ The brief does not present an argument under a separate heading for each ground of rejection on appeal (37 CFR 41.37(c)(1)(vii)).

7. ☐ The brief does not contain a correct copy of the appealed claims as an appendix thereto (37 CFR 41.37(c)(1)(viii)).

8. ☐ The brief does not contain copies of the evidence submitted under 37 CFR 1.130, 1.131, or 1.132 or of any other evidence entered by the examiner **and relied upon by appellant in the appeal**, along with a statement setting forth where in the record that evidence was entered by the examiner, as an appendix thereto (37 CFR 41.37(c)(1)(ix)).

9. ☐ The brief does not contain copies of the decisions rendered by a court or the Board in the proceeding identified in the Related Appeals and Interferences section of the brief as an appendix thereto (37 CFR 41.37(c)(1)(x)).

10. ☒ Other (including any explanation in support of the above items):

37 CFR 41.37 states that each of the items (e.g. "Real Party in Interest" and "Summary of the Claimed Subject Matter") start on a new page and a table of contents if missing. In addition, a "Claims" item is not required since a "Claims Appendix" is present and an "Evidence Appendix" is missing, the Evidence item provided is not required.

JASON CARDONE
SUPERVISORY PATENT EXAMINER

AC